Standards for Conscious Sedation in Dentistry: Alternative Techniques

A Report from the Standing Committee on Sedation for Dentistry

2007

The Royal College of Surgeons of England

The Royal College of Anaesthetists
Educating, Training and Setting Standards in Anaesthesia, Critical Care and Pain Management

The UK Academy of Medical Royal Colleges and their Faculties in 2001 commissioned the Royal College of Anaesthetists to establish an Intercollegiate Working Party to review evidence on the safe provision of sedation services and produce recommendations applicable to the full range of training and practice. The report of the Working Party acknowledged that the dental profession had been more effective in producing and following appropriate guidelines in sedation techniques than had other disciplines of medicine and surgery in general. Nevertheless the opening passage *Sedation techniques may make unpleasant healthcare procedures more acceptable to patients but have the potential to cause life-threatening complications* applied to everyone.

The Board of the Faculty of Dental Surgery and the Council of the Royal College of Anaesthetists together with our colleagues in the Faculty of General Dental Practice (UK) endorsed earlier guidance provided in *Conscious Sedation in the Provision of Dental Care* published by the Standing Dental Advisory Committee in 2003. We now commend to you this new additional guidance encompassing the use of alternative conscious sedation techniques. Together they have been designed to enable practitioners to take appropriate steps in the provision of a minimum standard for safe and effective patient care whatever the clinical setting. Safety must be paramount and we would like to re-emphasise the importance of adhering to the definition of conscious sedation as *a technique in which the use of a drug or drugs produces a state of depression of the central nervous system enabling treatment to be carried out, but during which verbal contact with the patient is maintained throughout the period of sedation. The drugs and techniques used to provide conscious sedation for dental treatment should carry a margin of safety wide enough to render loss of consciousness unlikely.*

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FACULTY OF DENTAL SURGERY
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THE ROYAL COLLEGE OF ANAESTHETISTS

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* The Standing Committee on Sedation for Dentistry was initially established by the Faculty of Dental Surgery of the Royal College of Surgeons of England, The Royal College of Anaesthetists and the Faculty of General Dental Practice (UK) in 1998 as the successor body to the Tripartite Committee on General Anaesthesia for Dentistry which was set up in 1992.

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EXECUTIVE SUMMARY

- Conscious sedation is defined as *A technique in which the use of a drug or drugs produces a state of depression of the central nervous system enabling treatment to be carried out, but during which verbal contact with the patient is maintained throughout the period of sedation. The drugs and techniques used to provide conscious sedation for dental treatment should carry a margin of safety wide enough to render loss of consciousness unlikely*

- There remains disquiet about safety and quality standards in the provision of conscious sedation for dental care. This applies particularly to the use of more advanced techniques[+] extending beyond the standard techniques* described in *Conscious Sedation in the Provision of Dental Care* [Standing Dental Advisory Committee] 2003[1]. There are nevertheless examples of good practice in the safe and effective administration of alternative techniques by well trained and experienced teams working in tightly controlled clinical settings.

- This document develops the earlier guidance[1] to encompass the use of alternative conscious sedation techniques. It has been prepared for dental and medical practitioners including anaesthetists and their teams. The combined guidance is designed to provide practitioners with the information they need to ensure they provide conscious sedation services to the specified standards in order to safeguard patients regardless of the clinical setting. The standards set out in this guideline are the minimum requirements.

- The guidance on standards for alternative sedation techniques requires that for safe practice:

    - **Premises** must comply with the standards required for the practice of dentistry but the waiting area, surgery and recovery facilities require additional consideration (Paragraph 1)
    - **Drugs & equipment** should be appropriate for the techniques utilised and include those required for sedation, monitoring, the management of complications and resuscitation
    - **The Team** includes operator/sedationist, dedicated sedationist, dental care professionals (DCPs), recovery personnel and support staff
    - **Patients'** medical and dental histories, age, ASA, psychological status, weight, social aspects and the proposed dental procedures must be carefully considered
    - **Documentation and protocols** must comply with contemporary clinical governance standards but additional consideration must be given to assessment and preparation, written valid consent, the technical procedure and recovery, written instructions for patient and escort
    - **Qualifications & Training Requirements** for the practitioner administering sedation using alternative techniques should acknowledge differences in educational and training back grounds (Paragraph 2). Conscious sedation for children must be provided only by those who are trained and experienced in sedating children and where appropriate equipment and facilities are available [1 10]
    - **Entry to training** in specific alternative techniques[+] requires that practitioners must have documented experience of the relevant intravenous or inhalational standard techniques (at least 100 cases over the last 2 years) and not less than 4 years post-registration experience in the United Kingdom as a dental or medical practitioner (Paragraph 3)

˜ **Standard Techniques** are defined as
-Intravenous sedation using midazolam alone
-Inhalational sedation using nitrous oxide / oxygen
-oral / transmucosal benzodiazepine* provided adequate competence in intravenous techniques has been demonstrated

**The transmucosal administration of conscious sedation is regarded by some sedationist as falling within the category of standard techniques. Nevertheless it is essential that strict protocols are in place SEE ANNEX 4*

+ **Alternative techniques** include
-any form of conscious sedation for patients under the age of 12 years # other than nitrous oxide/oxygen inhalation sedation
-benzodiazepine + any other intravenous agent for example: opioid, propofol, ketamine
-propofol either alone or with any other agent for example: benzodiazepine, opioid, ketamine
-inhalational sedation using any agent other than nitrous oxide / oxygen alone
-combined (non-sequential) routes for example: intravenous + inhalational agent (except for the use of nitrous oxide / oxygen during cannulation)

It is recognised that the physical and mental development of individuals varies and may not necessarily correlate with the chronological age

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This document has been prepared for the guidance of dental and medical practitioners including anaesthetists and their teams who provide conscious sedation services to supplement local anaesthesia for the provision of dental care. It develops the guidance provided in *Conscious Sedation in the Provision of Dental Care* (which covered the standard techniques) published by the Standing Dental Advisory Committee in 2003 [1] to encompass the use of alternative conscious sedation techniques [as defined on page 5]. This combined guidance should enable practitioners to take appropriate steps in the provision of a minimum standard for safe and effective patient care whatever the clinical setting. The importance of adhering to the definition of conscious sedation is re-emphasised as *a technique in which the use of a drug or drugs produces a state of depression of the central nervous system enabling treatment to be carried out, but during which verbal contact with the patient is maintained throughout the period of sedation. The drugs and techniques used to provide conscious sedation for dental treatment should carry a margin of safety wide enough to render loss of consciousness unlikely*

It is important to recognise that conscious sedation for children must be provided only by those who are trained and experienced in sedating children and where appropriate equipment and facilities are available [1 10]

Implementation will require careful consideration by a range of professional, provider and commissioning organisations.

BACKGROUND:
In 2004, The Chief Dental Officer (CDO) for England invited the Standing Dental Advisory Committee (SDAC) to take forward work in developing a strategy and make recommendations on:

- More rigorous maintenance of safety and quality standards for conscious sedation in the provision of dental care

- Improving access to more effective services for pain and anxiety control by delivering appropriate techniques matched to individual patient needs in a timely manner at a convenient location

Subsequently the Royal colleges in liaison with specialist associations developed this guidance in the light of their responsibility for the setting and monitoring of quality and safety standards in the application of safe sedation techniques.

THE NEED FOR THIS GUIDANCE

There remains disquiet about safety and quality standards in the provision of conscious sedation for dental care. This applies particularly to the use of more advanced techniques extending beyond those described in *Conscious Sedation in the Provision of Dental Care*[1]. There are nevertheless examples of good practice in the safe and effective administration of alternative techniques, a number within randomised controlled trials [12-17] showing that they can be used by well trained and experienced teams (often involving anaesthetists as well as dentists) to provide conscious sedation (according to the definition of page 3) working in tightly controlled clinical settings. In addition patients continue to report difficulty in gaining access to services for the assessment and appropriate control of pain and anxiety in dentistry including both conscious sedation and general anaesthesia.

In response to the invitation of the then CDO for England to take forward further strategic work in this field the SDAC once again convened an Expert Working Group. The conclusions and recommendations reached in its report of September 2005 are set out in Annex 1. These highlighted:

- the principles set out in *Conscious Sedation for the Provision of Dental Care*[1] provide guidance applicable to all sectors of dentistry; laying emphasis on the training for and administration of the standard techniques which ensure a wide margin of safety.

- an urgent need for more rigorous monitoring of quality and safety standards at the local level.

- that a robust system for assessment of the quality and safety standards of all NHS and independent clinical teams should be introduced and matched to the type of service provided

- a proposal that referral centres providing an extended range of techniques clearly based on local needs be introduced

- a need to develop and continuously update guidance on the quality standards required of such centres

- the introduction of such centres would present opportunities to link teaching, training and research to service provision

Following preparation of these recommendations there was a significant change in the national commissioning patterns and provision of dental services. More recently the Department of Health has published updated guidance on the commissioning of conscious sedation services in primary dental care [11]. Under these circumstances and in view of the need for supplementary guidance on standards this work was then taken forward by the Royal Colleges who produced the following recommendations.

GUIDANCE ON STANDARDS

REQUIREMENTS FOR SAFE PRACTICE

Requirements for the administration of standard and alternative techniques have been considered under the three broad headings of:

- Environment and patient selection
- Qualifications and training
- Experience and continuing professional development

For quality assurance in the delivery of safe patient care it is essential that these factors converge as emphasised by Figures 1 and 2 below. The area of convergence of the three circles represents the minimum acceptable standards for the practice of conscious sedation utilising a range of techniques alternative to the recognised standard techniques

Standard techniques are:

- Inhalational sedation using nitrous oxide / oxygen
- Intravenous sedation using midazolam alone
- Oral / transmucosal benzodiazepine* provided adequate competence in intravenous techniques has been demonstrated.

**The transmucosal administration of conscious sedation is regarded by some sedationist as falling within the category of standard techniques. Nevertheless it is essential that strict protocols are in place* *SEE ANNEX 4*

Alternative techniques include

- any form of conscious sedation for patients under the age of 12 years # other than nitrous oxide/oxygen inhalation sedation
- benzodiazepine + any other intravenous agent with sedative effects for example: opioid, propofol, ketamine
- propofol either alone or with any other agent for example: benzodiazepine, opioid, ketamine
- inhalational sedation using any agent other than nitrous oxide / oxygen alone
- combined (non-sequential) routes for example: intravenous + inhalational agent (except for the use of nitrous oxide / oxygen during cannulation)

 # It is recognised that the physical and mental development of individuals varies and may not necessarily correlate with the chronological age

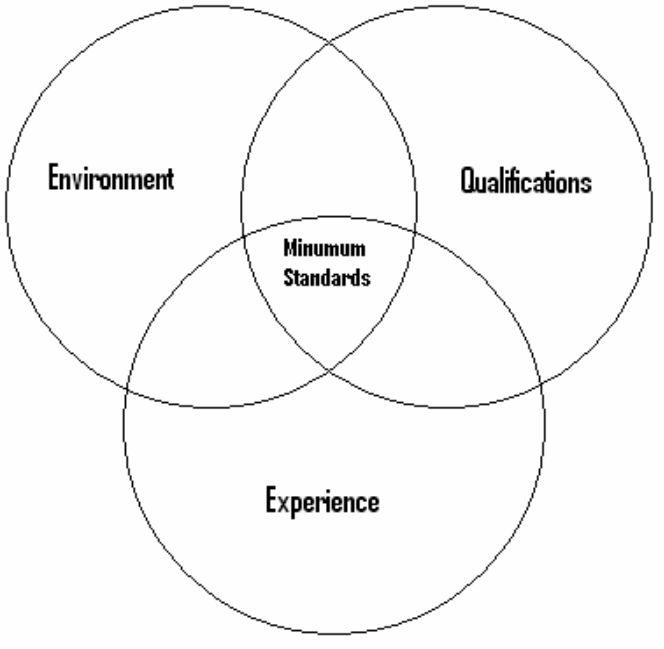


Fig 1 Components for the delivery of safe patient care

These together with continuing professional development and clinical audit represent a dynamic framework underpinning safe practice. The relative proportions of each component are not fixed: qualifications and training should be the foundation of safe practice whilst the selection of patients and the environment are dependent upon the experience of the sedationist. Continuing professional development is vital in maintaining a link with current standards and guidelines.

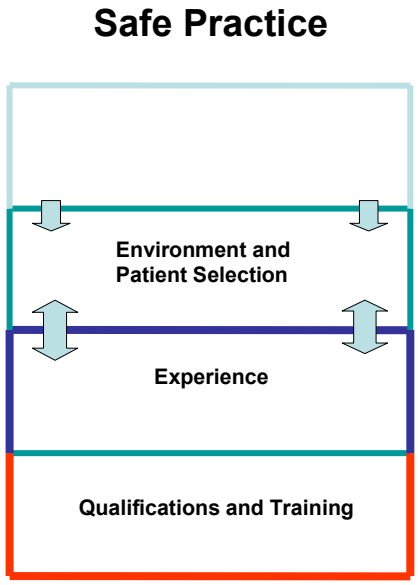


Fig 2 Quality assurance for safe practice in patient care

The aim is to ensure that effective treatment given to patients is provided safely and that it is well within the competencies of the dentist / sedationist, dedicated sedationist and whole practice care team.

Each of the paragraphs 1-3 below should be cross-referenced with the *Inspection Checklist for the Provision of Alternative Conscious Sedation Services in* Annex 3. [It is important to recognise that there is a clear distinction between this list and the one published in *Commissioning Conscious Sedation Services in Primary Dental Care* [11] which refers to the standard techniques]

1. ENVIRONMENT REQUIREMENTS

1.1 The Physical facilities

1.1.1 **Premises** must comply with the standards required for the practice of dentistry but the following require further consideration

- waiting area
- surgery
- recovery facilities

1.1.2 **Drugs & equipment** should be appropriate for the techniques utilised. These include those required for:

- sedation
- monitoring
- the management of complications and resuscitation

1.2 The Team

- operator/sedationist
- dedicated sedationist
- dental care professionals (DCPs)
- recovery personnel
- support staff

Each patient must be attended by at least two appropriately trained and experienced members of the conscious sedation team

A dedicated sedationist is required for the administration of any technique requiring the continuous IV infusion of a drug or drugs OR when three or more sedative drugs are used in combination regardless of the route. Operator/sedationist using such techniques MUST be able to demonstrate appropriate training in the use of the specific method, expertise in its use and also provide audit records of its safe administration in that clinical setting.

Where a dentist works with a dedicated sedationist either employed by the dentist or employed by a third party there must be a formal or contractual responsibility for the treating dentist to clarify the responsibilities and accountability of each member of the dental team involved with each patient during preparation, sedation, recovery and discharge.

1.3 The Patient

- medical and dental history
- age
- ASA
- weight
- psychological status
- social aspects
- proposed dental procedure

1.4 Documentation and protocols must comply with contemporary clinical governance standards for the practice of dentistry but the following require additional consideration

- assessment and preparation
- written valid consent
- technical procedure and recovery
- written instructions for patient and escort

2. QUALIFICATIONS & TRAINING REQUIREMENTS for the sedationist should acknowledge differences in educational and training backgrounds

2.1 Essential

- Primary registrable dental qualification
  OR
- Primary registrable medical qualification
- Appropriate knowledge, skills, attitude, behaviour and aptitude in the field of conscious sedation
- training in standard sedation techniques ~
- compliance with GMC/GDC CPD recommendations for conscious sedation
- compliance with contemporary standards
- evidence of training (even for anaesthetists) in specific alternative sedation techniques in an appropriate environment
- evidence of annual team training in Immediate Life Support or equivalent

It is clear that, for a medical graduate, a period of training in anaesthesia would provide much of the requirement. For sedation in another clinical setting (first trimester termination of pregnancy) [18] satisfactory completion of two years' training in anaesthesia has been recommended

2.2 Desirable

- postgraduate dental qualifications (eg: MFDS/MFGDP, MSc/Dip in sedation)
- trainer in conscious sedation
- postgraduate medical qualifications (eg: FRCA)

~The recognised Standard Techniques are
-Intravenous sedation using midazolam alone
-Inhalational sedation using nitrous oxide / oxygen
-oral / transmucosal benzodiazepine* provided adequate competence in intravenous techniques has been demonstrated

**The transmucosal administration of conscious sedation is regarded by some sedationist as falling within the category of standard techniques. Nevertheless it is essential that strict protocols are in place as stated in Annex 4*

3. EXPERIENCE REQUIREMENTS

For entry to training in specific alternative techniques[+] practitioners must have:

- documented experience of the relevant intravenous or inhalational standard techniques (at least 100 cases over last 2 years)

- not less than 4 years post-registration experience in the United Kingdom as a dental or medical practitioner

[+] Alternative techniques include
-any form of conscious sedation for patients under the age of 12 years [#] other than nitrous oxide/oxygen inhalation sedation
-benzodiazepine + any other intravenous agent for example: opioid, propofol, ketamine)
-propofol either alone or with any other agent for example: benzodiazepine, opioid, ketamine
-inhalational sedation using any agent other than nitrous oxide / oxygen alone
-combined (non-sequential) routes for example: intravenous + inhalational agent (except for the use of nitrous oxide / oxygen during cannulation)

[#] *It is recognised that the physical and mental development of individuals varies and may not necessarily correlate with the chronological age*

ANNEX 1
Summary of Second Report of an Expert Working Group of the Standing Dental Advisory Committee. September 2005

CONCLUSIONS

- There are reports of continuing problems for patients in gaining access to services providing appropriate management for the control of pain and anxiety in the provision of dental care. Such services include both conscious sedation and general anaesthesia.
- Measurement of the national need for specific services is not yet available. Need may be better defined by Strategic Health Authorities based on data provided by individual Primary Care Trusts accurately analysed by individuals with expert knowledge of the subject.
- Guidance exists[1] [2] developed by expert groups endorsed by the statutory regulatory authorities but there is evidence that there is incomplete compliance.
- There is an urgent need for a robust system of regular inspection and monitoring of clinical teams providing pain and anxiety control services and of the environment in which these are administered. However it must be recognised that there is already considerable regulation in place and any new system introduced must be effective, proportionate and adequately resourced. It is essential that a delicate balance be struck between the need for safe and efficient service provision and the level of regulation.
- There is existing documentation [3] [4] [6] that could be suitably adjusted to match local requirements to assist such a process of inspection and monitoring.
- Careful and accurate clinical assessment of the needs of an individual patient is essential. This is most appropriately carried out during a separate session in advance of but as close as possible to the time of the procedure. Geographical access difficulties may preclude a separate visit for clinical assessment alone. In addition it is recognised that the specific needs of an individual in relation to pain and anxiety control may vary from day to day.
- It should be recognised that the dental treatment requirements of individual patients differ widely and that these will contribute to the selection of an appropriate technique for pain and anxiety control including on occasions general anaesthesia.
- Careful and accurate clinical assessment provides the foundation for a pathway of management or referral of an individual patient for appropriate care in an appropriate setting in a timely manner.
- There is currently great responsibility on referring practitioners to explore all options with their patients and to explain the relative benefits and risks. These practitioners may not have the specific range and depth of knowledge to advise patients of all reasonable options. It is important that these options are further discussed on referral to a second practitioner in the light of additional factors that may arise at the time in relation for example to the specific technique to be used.
- There are existing models of highly trained and experienced clinical teams providing a wide range of pain and anxiety control techniques in a high quality, safe and well controlled manner. Techniques administered by such teams may in appropriate cases extend beyond the models published in guidance for the profession as a whole.

- Currently a relatively small number of practitioners administer conscious sedation and there is a need for additional availability of basic training to provide an awareness of such techniques for all undergraduates [7] in order to fulfil the requirements set down in *The First Five Years* published by the General Dental Council [8]. This should be augmented by further postgraduate theoretical and practical training followed by regular refresher training on a frequent basis. The postgraduate training for dental practitioners needs to be supplemented by team training recognising that each member of the clinical team will require individual basic and refresher training dependent upon their professional background.
- As there remain a number of areas where there is incomplete unanimity of opinion amongst authoritative groups a system of coordinated and collaborative research and development in the field of conscious sedation would now be valuable.

RECOMMENDATIONS: The principles set out in *Conscious Sedation for the Provision of Dental Care*[1] published by the SDAC provide guidance applicable to all sectors of dentistry. They lay emphasis on the training for and administration of the standard techniques; ie inhalational sedation using a mixture of nitrous oxide and oxygen and intravenous sedation using midazolam. These techniques ensure a wide margin of safety.

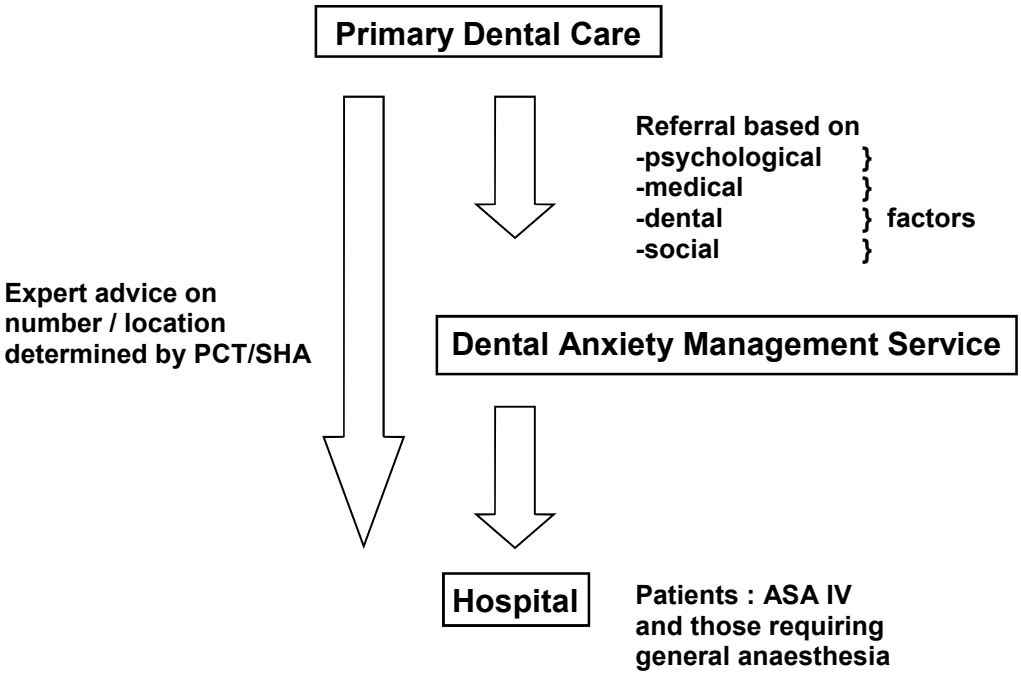
Recommendation 1
Assure compliance with guidance
There is an urgent need for more rigorous monitoring of quality and safety standards at the local level. Assessments should be undertaken on an annual basis (or more frequently if deemed appropriate) by individuals who have a depth of clinical experience in the field of pain and anxiety control for the provision of dental care who concurrently have well developed skills in risk awareness. Assessment of clinical teams in their working environment should be adequately resourced, apply to all sectors and places of service provision and should not be confined to those in the National Health Service. In this respect close liaison with the Healthcare Commission will be required to define a consistent approach and an appropriate level of regulation which is proportionate and recognises that there is already considerable regulation.

Reference has been made earlier to existing documentation developed by the SAAD. This provides both a proforma check list and supporting guidance notes referenced to relevant documentation designed to assist visitors undertaking inspection visitations of practices where standard techniques of conscious sedation are provided [3 4]. An outline person specification for a practitioner undertaking inspection assessments is shown at Annex 2. It is recommended that a list of such individuals be retained centrally to provide guidance for Primary Care Trusts (PCTs) and Strategic Health Authorities (SHAs) on appropriate visitors. It is important that such arrangements be monitored and the lists reviewed and updated on a regular basis.

Recommendation 2
Introduce a robust system for assessment of the quality and safety standards of all NHS and independent clinical teams should be introduced and matched to the type of service provided
There is a need for the development and recognition of a network of integrated dental anxiety management services providing referral centres at which appropriately trained and experienced teams would provide more advanced conscious sedation techniques under carefully controlled conditions. They would also have a ‘gatekeeper’ role to reduce

dependency on general anaesthesia and support development of appropriate general anaesthetic services for which there is a clear and continuing requirement. This would not however preclude primary care practitioners from referring patients directly for general anaesthesia where the indicators were present. Such centres would supplement the current provision of conscious sedation techniques provided by practitioners within primary care for which adequate resources are also required. Practitioners may require guidance notes to assist them in making appropriate referrals [5]. The flow diagram Figure 3 below summarises a suggested referral pattern for a locality.

Figure 3: Flow diagram illustrating proposed dental anxiety management referral pattern



Recommendation 3
Develop a network of integrated referral centres (dental anxiety management services) providing an extended range of techniques improving service to patients while achieving revenue savings
The requirements of local communities for services extending beyond the administration of the standard conscious sedation techniques differ. It is essential that such local provision should be based on accurate data carefully analysed by individuals with the relevant expert knowledge. Such individuals should comply as a minimum with the person specification set out for those undertaking inspection of facilities providing conscious sedation set out in Annex 2. A suggested proforma check-list to assist in the inspection of integrated referral services (dental anxiety management services) is appended at Annex 3.

Recommendation 4
The establishment of such centres should be clearly based on local needs
There will be a wide variation in local need. A local needs assessment will be required. It is suggested that the SHA's should identify expertise in the locality to facilitate a local needs assessment prior to new service commissioning.

Recommendation 5

Develop and continuously update guidance on the quality standards required of such centres

Guidance should be developed defining the education, training and experience required for practitioners and other members of the clinical team administering such techniques, the techniques which are appropriate, the groups of patients for whom these are generally regarded as safe and the appropriate clinical setting. Such guidance will require regular updating in the light of experience and clinical advance.

Recommendation 6

Take advantage of the opportunities presented by the new centres to link teaching, training and research to service provision

A network of such centres should work in collaboration to develop and deliver the evidence base for clinical practice in this field. In addition such centres would be in a position to contribute to the evolution of guidance for both the generality of practice and specialist referral clinics. It is envisaged that such centres would be able to feed into undergraduate teaching, postgraduate training and continuous professional development opportunities in this field.

ANNEX 2

PERSON SPECIFICATION FOR PRACTICE ASSESSOR OF ALTERNATIVE CONSCIOUS SEDATION SERVICES

QUALITY	ESSENTIAL	DESIRABLE
Registration	General Dental Council / General Medical Council	
Qualifications	1. BDS/MB BS or equivalent* PLUS 2. Diploma / MSc in the relevant Conscious Sedation techniques awarded by recognised institution OR equivalent alternative seniority and recognised expertise	
Training and Experience	Evidence of appropriate theoretical and practical training with annual refresher training. Continuing clinical activity to include a minimum of 100 administrations per year of standard or alternative conscious sedation techniques	Additional experience including the acceptance of patients referred by other colleagues, participation in teaching courses and in research
Practice Visit	Willingness to comply with documentation and checklist	Willingness to comment and recommend adjustments to the documentation in the light of knowledge and experience
Continuing Professional Development	Compliance with GDC/GMC *[General Medical / General Dental Councils]* requirements	Additional relevant CPD *[Continuing Professional Development]*
Knowledge	Knowledge of a wide range of conscious sedation techniques	Knowledge of latest developments and research in the field of conscious sedation
Mobility	Ability and willingness to travel to referral centre and to attend relevant administrative meetings	
Peer Review and Audit	Evidence of having undergone regular peer review including participation in clinical audit relative to conscious sedation	

* *BDS: Bachelor of Dental Surgery MB BS: Bachelor of Medicine and Surgery [basic qualifications for dentistry and medicine]*

ANNEX 3

INSPECTION CHECKLIST FOR THE PROVISION OF ALTERNATIVE CONSCIOUS SEDATION SERVICES **[It is important to recognise that there is a clear distinction between this list and the one published in *Commissioning Conscious Sedation Services in Primary Dental Care*[11] which applies to the provision of standard conscious sedation techniques]**

This inspection should be made by an Assessor experienced in the provision of alternative conscious sedation techniques [See Annex 2 for person specification]

Practice address **Phone number**	
Practice owner	
e-mail	
Website	
Date of inspection	
Inspection Team	

PREMISES	**REQUIREMENTS**	**YES**	**NO**	**OBSERVATIONS**
General Maintenance Lighting Heating	Compliance with contemporary standards for the practice of dentistry SDAC 8 [1] NDAC 2 [3] SAAD 2 [2]			
Surgery **Circulation areas and corridors** Number of Surgeries Separate waiting and recovery Chair / trolley suitable for CPR (supine)	SDAC 8 NDAC 2 SAAD 2 *Medical Emergencies and Resuscitation - Standards for Clinical Practice and Training for Dental Practitioners and Dental Care Professionals in General Dental Practice.* Resuscitation Council July 2006			

Sufficient space for management of medical emergencies and complications including resuscitation Access for emergency services	*Medical Emergencies and Resuscitation - Standards for Clinical Practice and Training for Dental Practitioners and Dental Care Professionals in General Dental Practice.* Resuscitation Council July 2006			
Waiting area Size relative to patient flow Lighting Heating/ventilation	SDAC 8 NDAC 2 SAAD 2			
Dental Surgery Size (accommodate patient, escort, sedationist, dentist and other staff) General repair Lighting Sedation gas scavenging Ventilation Appropriate privacy for assessment and treatment	SDAC 8 NDAC 2 SAAD 2 *Control of Substances Hazardous to Health Regulations COSHH* Health & Safety Executive 2002			
Recovery area Lighting Size sufficient to manage throughput of patients and escorts- unless recovery in dental chair Number of recovery beds/ chairs Suitably trained recovery staff Evidence of training	Adequate for the safe recovery of patients and appropriate for the type of case being managed SDAC 8 NDAC 2 SAAD 2			

DOCUMENTATION	**REQUIREMENTS**	**YES**	**NO**	**OBSERVATIONS**
Patient details Patient's dental history General medical history ASA Status Social history Medication	SDAC 17 NDAC 7 SAAD 4			
Advice on risks and Alternatives Proposed treatment plan Alternatives discussed with patient and escort				
Written pre-operative instructions Escorts Fasting Transport arrangements Contact telephone number				
Written consent Sedation Dental treatment	SDAC 16 NDAC 2 SAAD 4			
Written post-operative instructions Escort responsibilities Pain relief Haemorrhage Care of post-op site/dental Emergencies	SDAC 18 NDAC 2 SAAD 4			

Driving/machinery/legal documents Contact telephone number				
Written procedures for discharge Named dentally/medically qualified person Criteria for discharge decision				
Written operative records Sedation procedure – including appropriate monitoring Dental treatment Staff involved	SDAC 17 NDAC 7 SAAD 4			
Quality control of Sedation Number of dentists providing Sedation Named separate sedationist **Any change in the key professional personnel delivering the service MUST trigger a new inspection** Evidence of training including dates and logbook of CPD Arrangements for safe locum cover for absent team members Appropriate induction arrangements for all new team members	SDAC 17 NDAC 2 SAAD 4			

Audit Evidence of commitment to appropriate clinical audit	SDAC 22 NDAC 8 SAAD 7			
Types of Sedation provided for PATIENTS OVER 12 YEARS OF AGE Inhalation Oral Transmucosal Intravenous - single drug Multi-drug Multi-route	SDAC 20 NDAC 4 SAAD 1			
Types of Sedation provided for PATIENTS UNDER 12 YEARS OF AGE Inhalation Oral Transmucosal Intravenous - single drug Multi-drug Multi-route	SDAC 20 NDAC 4 SAAD 1			
Sedative drugs used Nitrous oxide / oxygen Sevoflurane Midazolam Opioids Propofol Ketamine Other	SDAC 17 NDAC 3 SAAD 6			

IV Access Appropriate cannulation				
Syringes Labelled				
How drugs given Bolus / Titration				
Staff / Patient Ratio during treatment	SDAC 5 NDAC 2 SAAD 4 Each patient must be attended by at least two appropriately trained and experienced members of the conscious sedation team A dedicated sedationist is required for the administration of any technique requiring the continuous IV infusion of a drug or drugs OR when three or more sedative drugs are used in combination regardless of the route. Operator / sedationist using such techniques MUST be able to demonstrate appropriate training in the use of the specific method, expertise in its use and also provide audit records of its safe administration in that clinical setting			
DENTAL NURSE TRAINING				
Specialist nursing qualification **(eg: Certificate in Dental Sedation Nursing)**				

TEAM TRAINING				
Evidence of in-house training in conscious sedation	SDAC 5 NDAC 9 SAAD 7			
Competences in the management of emergencies	Evidence of regular (at least annually) scenario based team training in the management of potential complications associated with conscious sedation. This will include airway management, use of AED* and life support. (* Automated External Defibrillator)			
CPR and Emergency Training been provided for the whole team At least every twelve months	M*edical Emergencies and Resuscitation - Standards for Clinical Practice and Training for Dental Practitioners and Dental Care Professionals in General Dental Practice.* Resuscitation Council July 2006 SDAC 21 NDAC 9 SAAD 7			
EQUIPMENT AND DRUGS It is acceptable for dental practices using the services of visiting sedationist to submit for inspection the resources of the sedationist with evidence that these are of suitable standard and present on every occasion that sedation is administered. To avoid confusion it shall be the responsibility of the visiting sedationist to confirm in writing which items of equipment and drugs are expected to be supplied by him / her and by the dentist respectively				
ISSS/CEN/BSI standards Maintenance and service recorded				

Inhalational sedation equipment Checked by sedationist at start of each session Cannot deliver hypoxic mixture (minimum 30% O_2) Emergency nitrous oxide shut off Scavenging equipment: active or passive Adequate reserve supply of Oxygen	M*edical Emergencies and Resuscitation - Standards for Clinical Practice and Training for Dental Practitioners and Dental Care Professionals in General Dental Practice.* Resuscitation Council July 2006 SDAC 19 NDAC 2 SAAD 5			
Monitoring Pulse oximeter with audible alarm Blood pressure measure Other monitoring appropriate to the sedation technique and patient	M*edical Emergencies and Resuscitation - Standards for Clinical Practice and Training for Dental Practitioners and Dental Care Professionals in General Dental Practice.* Resuscitation Council July 2006 SDAC 19 NDAC 3 SAAD 3			
Resuscitation equipment	SDAC 21 SAAD 4			
Drugs & equipment necessary to deal with sedation & medical emergencies Flumazenil Naloxone Batch numbers recorded	[M*edical Emergencies and Resuscitation - Standards for Clinical Practice and Training for Dental Practitioners and Dental Care Professionals in General Dental Practice.* Resuscitation Council July 2006] SDAC 21 SAAD 4			
OTHER ITEMS	SDAC 22 NDAC 10/11			

RECOMMENDATIONS

I hereby declare that this is a correct record of the dental practice inspection undertaken for suitability for retention on the list for provision of sedation for dentistry of _____ PCT.

Signed……

Name……..

Date…….

ANNEX 4

Oral and transmucosal sedation with midazolam

Introduction

In this context 'sedation' is defined as the attainment of the state described in Conscious Sedation in the Provision of Dental Care (2003; SDAC/DoH) by the oral or intranasal administration of midazolam or other benzodiazepine. It is distinct from premedication where the aim is to make the subsequent anxiety management technique easier. Oral and transmucosal sedation must be administered in the dental surgery under the supervision of the sedationist. Premedication is usually self-administered by the patient the night before or on the day of the intended dental treatment.

It is important to appreciate that the apparent simplicity of oral and intranasal sedation belies the potential for undesirable effects. Neither of these techniques allows accurate titration of midazolam or other benzodiazepine against the patient's response. With such fixed-dose techniques there is always a risk of unpredicted under-sedation or over-sedation. Monitoring, discharge and supervision requirements are the same as those for intravenous sedation.

Indications

Oral or intranasal sedation should only be used where it is not possible to use one of the titratable techniques. For example:

- where intravenous cannulation cannot be achieved due to patient phobia, learning difficulties or other disabilities
- where inhalation sedation with nitrous oxide does not provide sufficient relaxation or the patient has been assessed as being too anxious for this to be successful

Contraindications

- where it is more appropriate to use one of the titratable techniques (e.g. intravenous or inhalation sedation). It is thus the third choice technique
- where cannulation is difficult or impossible due to the anatomy of the patient or where there is a history of failed cannulation (which is not simply the result of patient anxiety)
- where the sedationist is inexperienced at cannulation

Training: Oral and intranasal sedation must only be administered by those:

- who are trained and experienced in intravenous sedation
- who are competent at intravenous cannulation
- who are competent in the management of sedation related complications
- who have evidence of training in these techniques

ANNEX 5

MEMBERS OF THE COMMITTEE

Dr Paul Averley	DH Pilot practitioner in Conscious Sedation
Dr Paul Cartwright	Royal College of Anaesthetists
Dr David Craig	King's College London Dental Institute
Dr Christopher Holden	Society for the Advancement of Anaesthesia in Dentistry
Professor John Lowry	Faculty of Dental Surgery. Royal College of Surgeons of England (Chairman)
Dr Yusof Omar	Medical Practitioner in Conscious Sedation
Dr Nigel Robb	Association of Dental Anaesthetists
Professor JAW Wildsmith	Royal College of Anaesthetists
Dr Michael Wood	Faculty of General Dental Practice (UK)]

ANNEX 6

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The Royal College of Anaesthetists

Educating, Training and Setting Standards in Anaesthesia, Critical Care and Pain Management

A Report from the Standing Committee on Sedation for Dentistry*

* The Standing Committee on Sedation for Dentistry was initially established by the Faculty of Dental Surgery of the Royal College of Surgeons of England, The Royal College of Anaesthetists and the Faculty of General Dental Practice (UK) in 1998 as the successor body to the Tripartite Committee on General Anaesthesia for Dentistry which was set up in 1992.

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